

MANAGING THE LIFETIME OF DISTRIBUTED RESOURCE DATA USING TEMPORAL SCOPES

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ABSTRACT

10 A method and system for enabling a client to programmatically manage the
lifetime of groups of distributed resources is herein provided. The method includes
grouping client-specific resource data usage generated from blocks of instruction
sequences bounded by scope instructions. A “begin scope” instruction invokes a method
initiating the temporal scope. Client-specific resource data generated during execution of
15 subsequent instructions is tracked by the distributed infrastructure. When an “end scope”
instruction is received, the client-specific resource data tracked under the temporal scope
is deleted from the distributed infrastructure. Client-specific resource data may be
tracked under two types of temporal scopes: a transient and a persistent temporal scope.
Data tracked under a transient scope does not survive beyond the lifetime of the client
20 connection, whereas data tracked under a persistent scope may survive beyond the
lifetime of the client connection. Lastly, temporal scopes may generally be nested.